

IN THE UNITED STATES DISTRICT COURT  
FOR THE DISTRICT OF DELAWARE

LIGHTING SCIENCE GROUP CORP.,	)	
	)	<b><u>REDACTED – PUBLIC VERSION</u></b>
Plaintiff,	)	
	)	
v.	)	CA No. _____
	)	
OSRAM GMBH, OSRAM LICHT AG,	)	
OSRAM OPTO SEMICONDUCTORS	)	JURY TRIAL DEMANDED
GMGH, & OSRAM OPTO	)	
SEMICONDUCTORS, INC.,	)	
	)	
Defendants.	)	

**COMPLAINT**

Plaintiff Lighting Science Group Corp. files this Complaint against Defendants OSRAM GmbH, OSRAM Licht AG, OSRAM Opto Semiconductors GmbH and OSRAM Opto Semiconductors, Inc., collectively “OSRAM”, for patent infringement under 35 U.S.C. § 271. Plaintiff alleges, based on its own personal knowledge with respect to its own actions and based upon information and belief with respect to all others’ actions, as follows:

**INTRODUCTION**

1. For nearly two decades, Lighting Science Group Corporation (“LSG”) has been at the forefront of innovation in the light-emitting diode (“LED” or “LEDs”) lighting space. LSG was the first U.S.-based manufacturer to make an LED light commercially available. In the ensuing years, LSG proved instrumental to the proliferation of LED lighting across American residences. In May 2010, through a relationship with The Home Depot, LSG released a 40-watt equivalent, 429 lumen LED bulb under The Home Depot’s EcoSmart brand for \$20. In an article titled, “The Home Depot takes LED lighting mainstream with \$20 bulbs,” Endgaget celebrated the product for

making high-quality LED lighting more economically accessible, noting that LSG's product was "cheaper and nearly as powerful as the 450 lumen, \$40-\$50 design industry heavyweight GE unveiled" the month before, and concluding, "[h]onestly, we're starting to wonder what the catch is."<sup>1</sup>

2. By 2011, LSG's winning combination of innovation, quality, and accessible pricing had led the company to become the largest North American producer of LED lights, selling 4.5 million LED lights in 2011 alone, and increasing sales by 450-percent over the prior year.<sup>2</sup> That success, in turn, led LSG to become a significant American employer. For three consecutive years, from 2012 to 2014, LSG was named on Deloitte's Technology Fast 500<sup>TM</sup> as one of the top 500 fastest growing companies in North America.<sup>3</sup>

3. Meanwhile, as LSG continued to advance the field of LED lighting both commercially and technologically, it simultaneously protected and disclosed its innovative intellectual property through hundreds of issued U.S. patents. Those patents, in turn, further advanced the LED lighting space, garnering thousands of citations from later patents filed by LSG's competitors.

4. But in recent years, an explosion of products which infringe LSG's innovative

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<sup>1</sup> Sean Hollister, "The Home Depot Takes LED Lighting Mainstream with \$20 Bulbs," Engadget (May 11, 2010), <https://www.engadget.com/2010/05/11/the-home-depot-takes-led-lighting-mainstream-with-20-bulbs/>.

<sup>2</sup> Jasmine Zhuang, "Lighting Science Group Becomes North American Largest LED Lights Producer," LEDinside (Jan. 31, 2012), [https://www.ledinside.com/news/2012/1/lighting\\_science\\_group\\_north\\_american\\_largest\\_producer\\_20120131](https://www.ledinside.com/news/2012/1/lighting_science_group_north_american_largest_producer_20120131).

<sup>3</sup> "Lighting Science Group Corporation Ranked in Top 500 Fastest Growing Companies for Third Consecutive Year in North America on Deloitte's 2014 Technology Fast 500<sup>TM</sup>," Pegasus Capital Advisors (Nov. 17, 2014), <http://www.pcalp.com/lighting-science-group-corporation-ranked-top-500-fastest-growing-companies-third-consecutive-year-north-america-deloittes-2014-technology-fast-500/>

patents has eroded LSG's market position. Thus, in order to protect its valuable intellectual property rights and substantial investments in innovating the LED lighting space, LSG files this complaint for patent infringement.

5. This matter is a companion case to an ITC proceeding, captioned *In the Matter of Certain Light-Emitting Diode Products, Systems, and Components Thereof*, filed concurrently herewith by LSG and naming the same Defendants as respondents. LSG hereby incorporates by reference the relevant portions of the Complaint filed in that ITC proceeding as if restated herein.

### **THE PARTIES**

6. Lighting Science Group Corp. is a Delaware corporation with its principal place of business located at 801 N. Atlantic Avenue, Cocoa Beach, FL 32931.

7. Both directly and through its subsidiaries, LSG is in the business of manufacturing, researching, developing, and selling devices and systems that use LEDs as the light source.

8. Defendant OSRAM Licht AG is a publicly traded company organized under the laws of Germany. It has its principal place of business at Marcel-Breuer-Strasse 6, 80807 Munich, Germany.

9. On information and belief, Defendant OSRAM Licht AG directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity. On information and belief, OSRAM GmbH is a wholly-owned subsidiary of OSRAM Licht AG.

10. Defendant OSRAM GmbH is a privately held company organized under the laws of Germany. It has its principal place of business at Marcel-Breuer-Strasse 6, 80807 Munich, Germany.

11. On information and belief, OSRAM GmbH directly or through its affiliates produces abroad, sells for importation, imports, and sells in the United States after importation Accused Products and/or knowingly induces such activity.

12. Defendant OSRAM Opto Semiconductors GmbH is a privately held company organized under the laws of Germany. It has its principal place of business at Leibnizstr 4, 93055 Regensburg, Germany.

13. On information and belief, OSRAM Opto Semiconductors GmbH is a subsidiary of OSRAM GmbH, and it, directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

14. Defendant OSRAM Opto Semiconductors, Inc. is a privately held corporation organized under the laws of the State of Delaware. It has its principal place of business at 1150 Kifer Road, Suite 100, Sunnyvale, California 94086.

15. On information and belief, OSRAM Opto Semiconductors, Inc. is a subsidiary of OSRAM GmbH, and it, directly or through its affiliates, imports into the United States, sells for importation into the United States, and/or sells after importation into the United States certain Accused Products and/or knowingly induces such activity.

16. OSRAM Licht AG, OSRAM GmbH, OSRAM Opto Semiconductors GmbH, and OSRAM Opto Semiconductors, Inc. collectively are referred to as “the OSRAM Defendants” or “OSRAM”.

17. As a result of the above, the OSRAM Defendants are liable jointly, severally, or in the alternative with respect to the same series of transactions or occurrences, and questions of fact common to all of them will arise in this action, consistent with 35 U.S.C. § 299.

**JURISDICTION AND VENUE**

18. This action arises under the patent laws of the United States, Title 35 of the United States Code. This Court has original subject matter jurisdiction pursuant to 28 U.S.C. §§ 1331 and 1338(a).

19. This Court has personal jurisdiction over OSRAM in this action because OSRAM has committed acts within this district giving rise to this action, and it has established minimum contacts with this forum such that the exercise of jurisdiction over OSRAM would not offend traditional notions of fair play and substantial justice. OSRAM, directly and through subsidiaries or intermediaries, has committed and continues to commit acts of infringement in this district by, among other things, importing, offering to sell, and selling products that infringe the asserted patents.

20. Defendant OSRAM Opto Semiconductors, Inc. is a resident of this district. OSRAM Licht AG controls the products sold by its subsidiaries, OSRAM GmbH, OSRAM Opto Semiconductors GmbH, and OSRAM Opto Semiconductors, Inc., and it controls or acts jointly with its subsidiaries in the marketing and sale of the accused products.

21. Venue is proper as to Defendants in this district under 28 U.S.C. §§ 1391(b), 1391(c), and 1400(b). Defendant OSRAM Opto Semiconductors, Inc. is organized under the laws of Delaware, and thus resides in this district, and has committed acts of infringement in this district.

22. Venue is proper as to the OSRAM Defendants which are organized under the laws of Germany. 28 U.S.C. § 1391(c)(3) provides that “a defendant not resident in the United States may be sued in any judicial district, and the joinder of such a defendant shall be disregarded in determining where the action may be brought with respect to other defendants.”

**COUNT ONE: INFRINGEMENT OF THE '483 PATENT**

23. U.S. Patent No. 7,098,483 (“the ’483 Patent”), titled “Light Emitting Diodes Packaged for High Temperature Operation,” was issued on August 29, 2006, naming Joseph Mazzochette and Greg Blonder as the inventors. Ex. 1 (’483 Patent).

24. LSG owns by assignment all rights, title, and interest in the ’483 Patent, and holds all substantial rights pertinent to this suit, including the right to sue and recover for all past, current, and future infringement.

25. On information and belief, OSRAM imports, sells for importation, and/or sells after importation into the United States certain Accused Products (“OSRAM Accused Products”) that infringe the ’483 Patent, including products sold as the OSRAM OSTAR® Stage (LE RTDCY S2WN) LED Package.

26. The OSRAM Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 11 and 16 of the ’483 Patent, in violation of 35 U.S.C. § 271(a). OSRAM directly infringes at least this claim by importing, selling for importation, and/or selling after importation into the United States the OSRAM Accused Products. The OSRAM Accused Products satisfy all claim limitations of claims 11 and 16 of the ’483 Patent at the time of importation into the United States.

27. Moreover, on information and belief, one or more of the Defendants knowingly and intentionally induces infringement of the ’483 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import OSRAM Accused Products into the United States (that is, by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Defendants is encouraging and facilitating infringement by others. For example, on information and belief, one

or more of the Defendants sells the OSRAM Accused Products or otherwise provides the OSRAM Accused Products to another Defendant or to distributors knowing that these distributors intend to import and/or sell the OSRAM Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Defendants have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the OSRAM Accused Products.

28. A claim chart comparing claims 11 and 16 of the '483 Patent to a representative OSRAM Accused Product, the OSRAM OSTAR® Stage (LE RTDCY S2WN) LED Package,<sup>4</sup> is attached as Exhibit 2.

29. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following products also constitute OSRAM Accused Products that infringe the '483 Patent for the reasons set forth above:

- OSRAM OSLON® SX (LA CN5M-FBGB-24-1) LED Package
- OSRAM OSTAR® Projection Compact (KW CSLNM1.TG-8M7N-ebvF46fcbB46-15B5) LED Package
- OSRAM OSLON® SSL 120 (GD CSSPM1.14-UOVJ-W4-1) LED Package
- OSRAM OSLON® Square (GD CSSRM2.14-ARAT-24-1) LED Package
- OSRAM OSLON® LX ECE (LUW CVBP.CE-5L8L-GMKM-8E8G) LED Package
- OSRAM OSLON® SSL 80 (GW CS8PM1.PM-LSLU-XX53-1-350-R18) LED Package
- OSRAM OSLON® Signal (LUW CRBP-LXLZ-G4J4-1-350-R18-Z) LED Package
- OSRAM OSLON® Square (LUW CQAR-MUNQ-HPJR-1) LED Package
- OSRAM OSLON® SSL 150 (GW CSHPM1.PM-LSLU-XX53-1) LED Package
- OSRAM OSLON® SSL 80 (GA CS8PM1.23-KQKS-W3-0) LED Package
- OSRAM OSLON® SSL 120 (GA CSSPM1.23-KSKU-W3-0) LED Package
- OSRAM OSLON® Square (GD CSSRM2.14-ARAT-24-1) LED Package
- OSRAM OSLON® Square (GW CSSRM3.PM-N5N7-XX51-1-700-R18) LED Package
- OSRAM OSLON® Signal (LB CRBP-HXJX-46-8E8G) LED Package

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<sup>4</sup> Upon information and belief, this product was manufactured by or for Osram.

- OSRAM OSOLON® Signal (LJ CKBP-JZKZ-25-1) LED Package
- OSRAM OSOLON® SSL 150 (LUW CRDP-LRLT-HPJR-1) LED Package

**COUNT TWO: INFRINGEMENT OF THE '053 PATENT**

30. U.S. Patent No. 7,095,053 (“the ’053 Patent”), titled “Light Emitting Diodes Packaged for High Temperature Operation,” issued on August 22, 2006, naming Joseph Mazzochette and Greg Blonder as the inventors. Ex. 3 (’053 Patent).

31. LSG owns by assignment all rights, title, and interest in the ’053 Patent, and holds all substantial rights pertinent to this suit, including the right to sue and recover for all past, current, and future infringement.

32. On information and belief, OSRAM imports, sells for importation, and/or sells after importation into the United States certain Accused Products (“OSRAM Accused Products”) that infringe the ’053 Patent, including products sold the OSRAM OSTAR® Stage (LE RTDCY S2WN) LED Package.

33. The OSRAM Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 7, 11, 13–15, 22, 26, and 28–30 of the ’053 Patent, in violation of 35 U.S.C. § 271(a). OSRAM directly infringes at least these claims by importing, selling for importation, and/or selling after importation into the United States the OSRAM Accused Products. The OSRAM Accused Products satisfy all claim limitations of claims 7, 11, 13–15, 22, 26, and 28–30 of the ’053 Patent at the time of importation into the United States.

34. Moreover, on information and belief, one or more of the Defendants knowingly and intentionally induces infringement of the ’053 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import OSRAM Accused Products into the United States (that is, by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Defendants is

encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Defendants sells the OSRAM Accused Products or otherwise provides the OSRAM Accused Products to another Defendant or to distributors knowing that these distributors intend to import and/or sell the OSRAM Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Defendants have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the OSRAM Accused Products.

35. A claim chart comparing claims 7, 11, 13–15, 22, 26, and 28–30 of the '053 Patent to a representative OSRAM Accused Product, the OSRAM OSTAR® Stage (LE RTDCY S2WN) LED Package,<sup>5</sup> is attached as Exhibit 4.

36. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute OSRAM Accused Products that infringe the '053 Patent for the reasons set forth above:

- OSRAM OSLON® SX (LA CN5M-FBGB-24-1)
- OSRAM OSTAR® Projection Compact (KW CSLNM1.TG-8M7N-ebvF46fcbB46-15B5)
- OSRAM OSLON® SSL 120 (GD CSSPM1.14-UOVJ-W4-1)
- OSRAM OSLON® Square (GD CSSRM2.14-ARAT-24-1)
- OSRAM OSLON® LX ECE (LUW CVBP.CE-5L8L-GMKM-8E8G)
- OSRAM OSLON® SSL 80 (GW CS8PM1.PM-LSLU-XX53-1-350-R18)
- OSRAM OSLON® Signal (LUW CRBP-LXLZ-G4J4-1-350-R18-Z)
- OSRAM OSLON® Square (LUW CQAR-MUNQ-HPJR-1)
- OSRAM OSLON® SSL 150 (GW CSHPM1.PM-LSLU-XX53-1)
- OSRAM OSLON® SSL 80 (GA CS8PM1.23-KQKS-W3-0)
- OSRAM OSLON® SSL 120 (GA CSSPM1.23-KSKU-W3-0)
- OSRAM OSLON® Square (GD CSSRM2.14-ARAT-24-1)
- OSRAM OSLON® Square (GW CSSRM3.PM-N5N7-XX51-1-700-R18)
- OSRAM OSLON® Signal (LB CRBP-HXJX-46-8E8G)
- OSRAM OSLON® Signal (LJ CKBP-JZKZ-25-1)

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<sup>5</sup> Upon information and belief, this product was manufactured by or for Osram.

- OSRAM OSOLON® SSL 150 (LUW CRDP-LRLT-HPJR-1)

**COUNT THREE: INFRINGEMENT OF THE '421 PATENT**

37. U.S. Patent No. 7,528,421 (“the ’421 Patent”), titled “Surface Mountable Light Emitting Diode Assemblies Packaged for High Temperature Operation,” issued on May 5, 2009, naming Joseph Mazzochette as the inventor. Ex. 5 (’421 Patent).

38. LSG owns by assignment all rights, title, and interest in the ’421 Patent, and holds all substantial rights pertinent to this suit, including the right to sue and recover for all past, current, and future infringement.

39. On information and belief, OSRAM imports, sells for importation, and/or sells after importation into the United States certain Accused Products (“OSRAM Accused Products”) that infringe the ’421 Patent, including products sold as the OSRAM OSCONIQ® P 3737 (2W) (GW PUSRA1.EM-M9N1-A232-1) LED Package.

40. The OSRAM Accused Products directly infringe, literally and/or under the doctrine of equivalents, at least claims 1–2, 6, and 10 of the ’421 Patent, in violation of 35 U.S.C. § 271(a). OSRAM directly infringes at least these claims by importing, selling for importation, and/or selling after importation into the United States the OSRAM Accused Products. The OSRAM Accused Products satisfy all claim limitations of claims 1–2, 6, and 10 of the ’421 Patent at the time of importation into the United States.

41. Moreover, on information and belief, one or more of the Defendants knowingly and intentionally induces infringement of the ’421 Patent in violation of 35 U.S.C. § 271(b) by actively encouraging others to offer to sell, sell, use, and/or import OSRAM Accused Products into the United States (that is, by actively encouraging others to directly infringe). On information and belief, with knowledge and intent, or with willful blindness, one or more of the Defendants is

encouraging and facilitating infringement by others. For example, on information and belief, one or more of the Defendants sells the OSRAM Accused Products or otherwise provides the OSRAM Accused Products to another Defendant or to distributors knowing that these distributors intend to import and/or sell the OSRAM Accused Products in the United States. On information and belief, as of the filing of this Complaint or earlier, the Defendants have had knowledge of, or have been willfully blind toward, the Asserted Patents and the infringement of the Asserted Patents by making, using, selling, offering to sell, and/or importing the OSRAM Accused Products.

42. A claim chart comparing claims 1–2, 6, and 10 of the '421 Patent to a representative OSRAM Accused Product, the OSRAM OSCONIQ® P 3737 (2W) (GW PUSRA1.EM-M9N1-A232-1) LED Package,<sup>6</sup> is attached as Exhibit 6.

43. Additionally, on information and belief, including based on teardown analyses and imaging, at least the following additional products constitute OSRAM Accused Products that infringe the '421 Patent for the reasons set forth above:

- OSRAM OSLON® Black (LUW H9GP-KYLY-4C8E-1-350-R18-Z) LED Package
- OSRAM OSLON® Black Flat (LUW HWQP-8M7N-EBVF46FCBB46-8E8H) LED Package
- OSRAM DURIS® S 5 (GW PSLR31.EM-LR-XX51-1-150-R18) LED Package
- OSRAM SYNIOS E4014 (KW DPLS31.SB-5H5J-E5P7-EG-1-120-R18) LED Package
- OSRAM OSLON® Black Flat (LA H9PP-JXKX-24-1) LED Package
- OSRAM OSLON® Black (SFH 4713A) LED Package

### **JURY DEMAND**

Plaintiffs hereby demand a trial by jury on all issues so triable.

### **PRAYER FOR RELIEF**

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<sup>6</sup> Upon information and belief, this product was manufactured by or for Osram.

WHEREFORE Plaintiff Lighting Science Group Corp. prays upon this Court for an order granting the following relief:

- a. A judgment in favor of Plaintiff that OSRAM has infringed, either literally and/or under the doctrine of equivalents, '483 patent, the '053 patent, and the '421 patent;
- b. A permanent injunction prohibiting OSRAM from further acts of infringement of the '483 patent, the '053 patent, and the '421 patent;
- c. A judgment and order requiring OSRAM to pay Plaintiff its damages, costs, expenses, and any enhanced damages to which Plaintiff may be entitled for OSRAM's infringement of the '483 patent, the '053 patent, and the '421 patent; and
- d. A judgment and order requiring OSRAM to provide an accounting and to pay supplemental damages to Plaintiff, including without limitation, pre-judgment and post-judgment interest;
- e. A judgment and order finding that this is an exceptional case within the meaning of 35 U.S.C. § 285 and awarding to Plaintiff their reasonable attorneys' fees against OSRAM; and
- f. Any and all other relief as the Court may deem appropriate and just under the circumstances.

ASHBY & GEDDES

*/s/ Andrew C. Mayo*

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Dated: April 30, 2019

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